

## ABSTRACT

Ring-opening polymerization of a cyclic ester is performed by using an alcohol and water positively as initiators or/and molecular weight-adjusting agents to control the initial properties and properties 5 with time of the resultant aliphatic polyester. More specifically, an aliphatic polyester is produced by ring-opening polymerization of a cyclic ester containing water and an alcohol based on a total proton concentration and a ratio between a mol concentration of carboxyl (carboxylic acid)-source compounds including water and a mol 10 concentration of alkoxycarbonyl (ester)-source compounds, as polymerization-controlling indexes.